

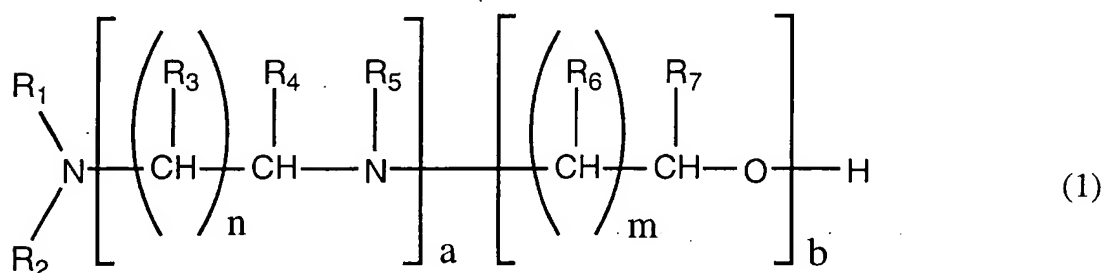
# AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-19. Canceled.

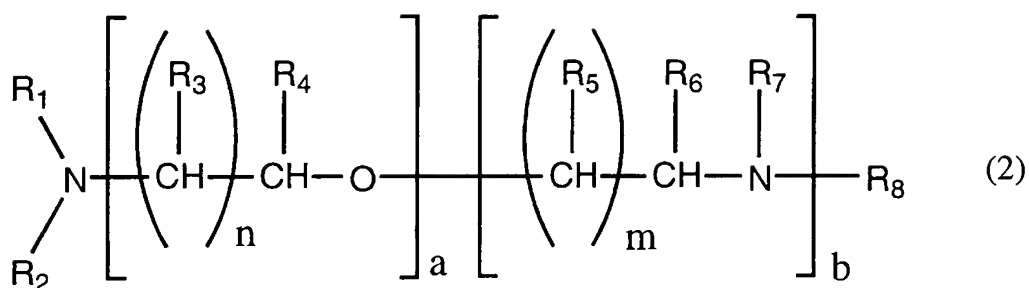
20. (New) A method for producing a rigid polyurethane foam, which comprises reacting a polyol with a polyisocyanate in the presence of an amine catalyst and a blowing agent, wherein the amine catalyst used is selected from:

an amine compound of the following formula (1):

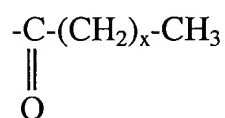


wherein each of R<sub>1</sub> to R<sub>7</sub> which are independent of one another, is hydrogen, a C<sub>1-16</sub> alkyl group, a C<sub>1-16</sub> aryl group, a C<sub>2-6</sub> hydroxyalkyl group, a C<sub>2-6</sub> aminoalkyl group, a C<sub>2-6</sub> monomethylaminoalkyl group or a C<sub>2-6</sub> dimethylaminoalkyl group, each of n and m which are independent of each other, is an integer of from 1 to 11, and each of a and b which are independent of each other, is an integer of from 0 to 5, provided that R<sub>5</sub> and R<sub>1</sub> or R<sub>2</sub> may together form a cyclic compound having a piperazine structure, an imidazole structure or an imidazoline structure, provided that when a=1 and b = 0, R<sup>5</sup> is not H; or

an amine compound of the following formula (2):



wherein each of R<sub>1</sub> to R<sub>8</sub> which are independent of one another, is hydrogen, a C<sub>1-16</sub> alkyl group, a C<sub>1-16</sub> aryl group, a C<sub>2-6</sub> hydroxyalkyl group, a C<sub>2-6</sub> aminoalkyl group, a C<sub>2-6</sub> monomethylaminoalkyl group, a C<sub>2-6</sub> dimethylaminoalkyl group or



wherein x is an integer of from 0 to 3, each of n and m which are independent of each other, is an integer of from 1 to 11, and each of a and b which are independent of each other, is an integer of from 0 to 10, provided that R<sub>7</sub> and R<sub>1</sub> or R<sub>2</sub> may together form a cyclic compound having a piperazine structure, an imidazole structure or an imidazoline structure, and provided that when a=0 and b=1, R<sup>7</sup> and R<sup>8</sup> are not H, or

N-(2-dimethylaminoethyl)-N'-methylpiperazine, i

and as the blowing agent, 1,1,1,3,3-pentafluoropropane (HFC-245fa) is used.

21. (New) The method for producing a rigid polyurethane foam according to Claim 20, wherein in the formula (1), each of R<sub>1</sub> to R<sub>7</sub> which are independent of one another, is hydrogen atom, a methyl group, a hydroxyethyl group, a hydroxypropyl

group, an aminoethyl group, an aminopropyl group, a monomethylaminoethyl group, a monomethylaminopropyl group, a dimethylaminoethyl group or a dimethylaminopropyl group, provided that  $R_5$  and  $R_1$  or  $R_2$  may together form a cyclic compound having a piperazine structure.

22. (New) The method for producing a rigid polyurethane foam according to Claim 20, wherein in the formula (2), each of  $R_1$  to  $R_8$  which are independent of one another, is hydrogen atom, a methyl group, a hydroxyethyl group, a hydroxypropyl group, an aminoethyl group, an aminopropyl group, a monomethylaminoethyl group, a monomethylaminopropyl group, a dimethylaminoethyl group, a dimethylaminopropyl group or an acetyl group, provided that  $R_7$  and  $R_1$  or  $R_2$  may together form a cyclic compound having a piperazine structure.

23. (New) A method for producing a rigid polyurethane foam, which comprises reacting a polyol with a polyisocyanate in the presence of an amine catalyst and blowing agent, wherein as the amine catalyst, at least one amine compound selected from the group consisting of N-acetylenediamine, N,N,N'-trimethyldiethylenetriamine, N,N,N',N''-tetramethyltriethylenetetramine, N,N,N',N'',N'''-pentamethyltetraethylenepentamine, N,N,N',N'',N''',N''''-hexamethylpentaethylenhexamine, N,N,N',N'',N''',N''''-polyoxypropylenediamine; trimethylethylenediamine, trimethylpropylenediamine, trimethylhexamethylenediamine, tetramethyldiethylenetriamine, bis(N,N-dimethylaminopropyl)amine, N-methylpiperazine; N,N-dimethylaminoethanol, N,N-dimethylaminoisopropanol, N,N-

dimethylaminoethoxyethanol, N,N-dimethylaminoethyl-N'-methylaminoethanol, N,N-dimethylaminopropyl-N'-methylaminoethanol, N,N,N'-trimethyl-N'-hydroxyethylbisaminoethyl ether, N,N-dimethylaminoethyl-N'-methylaminoethyl-N''-methylaminoisopropanol, N,N-bis(3-dimethylaminopropyl)-N-isopropanolamine, N-(3-dimethylaminopropyl)-N,N-diisopropanolamine, N-(2-hydroxyethyl)-N'-methylpiperazine, N,N-dimethylaminohexanol, 5-dimethylamino-3-methyl-1-pentanol and N-(2-dimethylaminoethyl)-N'-methylpiperazine and

the blowing agent is 1,1,1,3,3-pentafluoropropane (HFC-245fa).

24. (New) The method for producing a rigid polyurethane foam according to Claim 20 wherein the blowing agent and water are used in combination.

25. (New) The method for producing a rigid polyurethane foam according to Claim 20, wherein the amine catalyst is used in an amount of from 0.01 to 20 parts by weight per 100 parts by weight of the polyol.

26. (New) The method for producing a rigid polyurethane foam according to Claim 20, wherein the reaction is carried out by adding a surfactant as an auxiliary agent.

27. (New) The method for producing a rigid polyurethane foam according to Claim 20, wherein the reaction is carried out by adding a cross-linking agent or a chain extender as an auxiliary agent.

28. (New) The method for producing a rigid polyurethane foam according to Claim 20, wherein the reaction is carried out by adding a flame retardant as an auxiliary agent.

29. (New) The method for producing a rigid polyurethane foam according to Claim 23, wherein the blowing agent and water are used in combination.

30. (New) The method for producing a rigid polyurethane foam according to Claim 23, wherein the amine catalyst is used in an amount of from 0.01 to 20 parts by weight per 100 parts by weight of the polyol.

31. (New) The method for producing a rigid polyurethane foam according to Claim 23, wherein the reaction is carried out by adding a surfactant as an auxiliary agent.

32. (New) The method for producing a rigid polyurethane foam according to Claim 23, wherein the reaction is carried out by adding a cross-linking agent or a chain extender as an auxiliary agent.

33. (New) The method for producing a rigid polyurethane foam according to Claim 23, wherein the reaction is carried out by adding a flame retardant as an auxiliary agent.